MORTGAGE BANKING IN AMERICA.

I.

THE two large classes likely to be benefited by the publication of the last census mortgage returns are the American mortgage borrowers and the American mortgage investors. I shall first state some facts, which have been compiled from the census and other returns, and shall then consider the relations between American mortgage borrowers and American lenders in the light of these facts.

Of the census returns sufficient has now been published to show what the general situation is. The work done has been an immense one, since it has been attempted to tabulate all the mortgages recorded during the last ten years, and the method adopted to ascertain the present existing debt in force has been a bold one. Instead of taking the amount of mortgages uncancelled on the records as the living debt in force, the average life of the mortgages that were cancelled of record between 1879 and 1890 has been computed, and this has been applied to the entire recorded indebtedness in order to ascertain the indebtedness existing at present. From this has been afterwards deducted the percentage of partial payments as obtained for different portions of the country by a detailed, exact and personal investigation in 102 counties.

On the whole there can be no doubt that the results must be considered fairly accurate, coming, in Mr. Carroll D. Wright's opinion, probably within from five to ten per cent. of the actual truth. Railroad mortgages have not been included in this investigation, but most other instruments for borrowing on real property have been tabulated, such as trust deeds, and the forms used most frequently in the South, unconditional deeds with a bond for re-conveyance, and vendors' liens. The railroad contracts

STATES	Average Proportion of the Value Loaned [1]		Average Rate of Interest Paid Per Cent. [2]			Average Amount of the Existing Mortgage		Mortgage Indebtedness in Force	
	Acres	Lots	Acres	Lots	Total	Acres	Lots	Acres	Lots
Maine	36.68	37.24	6.22	6.09	6.15	$457	$663	$14,150,646	$18,476,562
New Hampshire	38.44	37.35	5.98	5.98	5.98	648	897	9,430,540	9,537,719
Vermont	41.76	37.20	5.97	5.98	5.97	872	700	19,439,988	8,467,699
Massachusetts	41.88	45.03	5.64	5.38	5.41	1,271	1,939	42,441,247	280,836,421
Rhode Island	42.59	44.31	5.77	5.71	5.72	1,993	1,680	5,262,243	31,516,000
Connecticut	40.64	43.14	5.70	5.63	5.64	1,070	1,461	13,176,736	66,744,335
New York	.....	....	....	....	....	1,389	3,289	217,813,055	1,390,061,246
Pennsylvania	.....	....	5.63	5.60	5.61	1,004	1,270	172,037,488	441,068,314
Delaware	.....	....	5.76	5.69	5.71	2,041	1,524	5,649,705	10,472,991
District of Columbia	32.78	34.57	5.74	5.94	5.93	6,979	2,108	2,226,277	49,760,312
Maryland	38.49	39.94	5.79	5.85	....	1,636	937	....	....
South Carolina	50.24	46.86	8.57	8.17	....	930	1,104	....	....
Georgia	41.21	42.59	8.33	7.89	....	489	756	16,969,687	10,417,903
Florida	.....	....	....	....	....	754	740	10,629,142	4,875,977
Tennessee	50.02	44.63	6.00	6.00	6.00	955	1,077	23,996,252	16,425,144
Alabama	53.52	...	8.13	7.86	8.06	1,064	1,238	28,762,387	10,265,596
Missouri	58.31	....	8.15	7.25	7.68	986	1,270	101,718,625	112,891,147
Arkansas	56.81	....	9.12	9.01	9.08	439	587	9,051,117	5,315,478
Ohio (10 Counties)	36.97	42.76	6.85	6.30	....	1,402	856	....	....
Indiana	30.56	....	6.90	6.71	6.84	702	554	74,553,217	36,177,426
Illinois	43.13	....	6.92	6.52	6.69	1,281	1,302	165,289,112	219,010,038
Iowa	38.25	33.17	7.53	7.84	7.61	872	620	149,457,144	50,317,027
Wisconsin	40.07	32.68	6.86	6.79	6.84	730	759	81,535,361	40,302,807
Minnesota	43.73	34.36	7.95	7.48	7.66	776	1,243	75,355,562	122,390,427
Nebraska	44.47	....	8.37	7.96	8.24	844	880	90,506,968	42,395,354
Kansas	47.53	....	8.56	8.86	8.64	859	716	174,720,071	68,426,755
Colorado	33.13	34.46	.....	.....	....	1,435	1,608	30,195,056	54,863,737
Montana	31.69	36.08	10.97	10.97	10.97	2,136	1,024	5,094,329	3,635,578
Wyoming	34.63	41.76	10.92	10.73	....	2,125	1,213	3,013,674	1,953,391
Utah	24.93	27.70	10.13	9.71	....	1,178	1,459	2,426,018	5,614,811
Oregon	32.58	....	9.39	9.59	9.46	984	1,102	15,983,361	6,945,076
Nevada	33.13	34.46	9.63	10.19	....	1,979	1,093	1,836,655	358,340
New Mexico	34.22	35.89	10.05	10.80	....	10,299	842	5,839,416	805,257
Idaho	34.63	41.76	10.55	11.15	....	1,122	559	2,811,130	356,119
Arizona	40.55	35.45	.....	.....	....	2,210	1,012	1,580,301	768,218
California	.....	....	.....	.....	....	2,677	1,780	120,890,877	120,159,304
Total	35.44	40.53	7.27 [3]	6.32 [3]	6.73 [3]	1,002 [4]	1,676 [4]	1,686,272,279	3,249,183,617 [4]

[1] The figures for Me., N. H., Vt., Mass., R. I., Conn., Md., S. C., Mont., Wyo., U., Nev., N. Mex. and Id. are taken from the Bulletins on "Ownership and Debt," and form a partial statement only; so also the figures for Lots for Ga., Fla., Ia., Wis. and Minn.

[2] As yet only partial statements are given for Md., S. C., Ga., Mont., Wyo., U., Nev., N. Mex., Id. and Ari.

[3] Total for 21 States and Territories.

[4] Total for 33 States and Territories.

Mortgage Indebtedness in Force	Ratio of Mort'ge Indebtedness to Est. True Value of All the Real Estate. Per ct.	Ratio of Number of Mortgaged Acres or Lots to Number Assessed Per Cent.		Average Number of Acres Covered by Mortgages in Force	Average Amount of Debt in Force per Mortgaged Acre	Percentage of Partial Payments made on the Original Amounts of Existing Loans			Average Life of Each Mortgage Years		
TOTAL	TOTAL	ACRES	LOTS			ACRES	LOTS	TOTAL	ACRES	LOTS	TOTAL
$32,627,208	13.95	.....	.....	132	$ 3.46	13.98	15.72	14.97	6.51	6.31	6.40
18,968,259	12.12	.....	.....	79	8.19	13.98	15.72	14.86	5.96	6.20	6.07
27,907,687	22.05	.....	.....	75	11.66	12.90	10.68	12.24	5.35	6.16	5.53
323,277,668	19.32	20.49	.....	28	46.12	13.04	11.26	11.50	6.88	6.15	6.24
36,778,243	11.92	.....	.....	37	54.51	12.90	10.68	11.00	5.61	6.18	5.90
79,921,071	16.44	17.70	.....	36	29.92	12.90	10.68	11.05	5.35	6.19	6.04
1,607,874,301	30.62	40.43	.....	73	19.15	13.95	14.37	14.31	8.40	7.35	7.50
613,105,802	18.91	50.65	.....	74	13.64	13.12	13.12	13.12	5.34	3.92	4.32
16,122,696	15.92	.....	.....	105	19.51	9.33	8.39	8.72	6.52	4.98	5.42
51,986,589	35.86	51.25	.....	37	189.39	10.96	14.44	14.30	6.33	5.39	5.42
....	.....	.....	.....	...	.....	.....	.....	.....	....	....	....
....	.....	.....	.....	...	.....	.....	.....	.....	....	....	....
27,387,590	7.15	21.02	.....	224	2.18	13.18	30.95	20.92	3.73	3.68	3.71
15,505,119	8.49	9.76	.....	165	4.56	7.64	22.97	13.08	4.27	2.69	3.53
40,421,396	8.80	11.65	.....	176	5.44	23.81	12.19	17.31	2.92	2.74	2.81
39,027,983	15.44	21.63	.....	222	4.80	10.68	10.83	10.72	2.98	2.14	2.73
214,609,772	15.82	25.41	28.98	98	10.01	6.49	16.48	11.97	3.74	2.69	3.06
14,366,595	6.70	12.12	.....	143	3.07	20.63	21.79	21.09	2.74	3.03	2.85
....	.....	.....	.....	...	.....	.....	.....	.....	....	....	....
110,730,643	9.79	30.38	.....	64	10.93	18.77	15.70	17.79	4.95	3.32	4.40
384,399,150	12.36	30.78	26.14	83	15.50	9.46	13.34	11.71	5.09	3.37	4.01
199,774,171	16.64	46.95	.....	95	9.17	11.58	14.19	12.25	5.06	4.44	4.92
121,838,168	11.91	32.56	.....	91	7.98	13.93	12.17	13.36	5.67	3.28	4.77
197,745,989	20.69	35.73	21.55	105	7.38	8.01	13.29	11.49	4.30	3.48	3.75
132,902,332	20.03	58.13	20.41	131	6.43	3.20	9.24	5.21	3.79	2.49	3.24
243,146,826	26.83	61.56	21.24	131	6.57	3.98	7.50	5.00	3.66	2.76	3.38
85,058,793	13.08	30.90	.....	171	8.39	5.31	6.51	6.09	2.55	1.93	2.13
8,729,907	4.78	11.63	.....	237	9.03	4.35	4.93	4.59	2.02	1.96	2.00
4,967,065	18.82	14.01	.....	580	3.67	5.06	4.00	4.65	4.69	2.98	3.60
8,040,829	7.14	.....	.....	167	7.05	5.33	6.51	6.16	2.62	1.69	1.86
22,928,437	7.52	31.69	.....	156	6.32	6.17	13.04	8.43	3.32	2.26	2.89
2,194,995	4.59	.....	.....	394	5.02	5.33	6.51	5.52	2.78	2.06	2.68
6,644,673	11.99	17.19	.....	2876	3.58	5.33	6.51	5.47	1.44	1.75	1.47
3,167,249	4.33	35.64	.....	143	7.82	4.79	14.48	5.99	2.33	1.95	2.25
2,348,519	4.78	6.39	.....	312	7.08	5.33	6.51	5.72	2.21	1.70	2.12
241,050,181	15.90	34.48	.....	245	10.91	7.48	8.02	7.75	2.79	3.38	2.95
$4,935,455,896 [4]	18.57 [4]	32.09	23.69 [4]	108 [4]	9.30 [4]	10.48	13.25	12.32 [4]	4.64	4.93	4.81 [4]

of the land grant roads[1] and the state land certificates[2] have been excluded, as well as mortgages on churches and other property of a public nature.

The tables on pages 204 and 205 have been compiled from the Census Bulletins that have been issued by the United States from time to time, giving more or less uniform and complete statistics for the respective states and also facts as to "ownership and debt" based on partial returns.

The total mortgage indebtedness of 33 states and territories thus is, $4,935,455,896, and if we assume the ratio of debt to assessed valuation[3] to be the same for the entire country as for these 33 states and territories, we find that the total mortgage indebtedness of the United States is, in round numbers, $7,100,000,000.

The rate of interest is high; over 5½ per cent. in the East, about 8 per cent. in the South, nearly 7 per cent. in the Middle States, about 8 per cent. in the Western States, and over 10 per cent. in the mountain and arid states and territories. And for the West and South it would be safe to add from one-half to one per cent. per annum for the commission of the loan agent, which is frequently deducted from the principal sum of the loan when made, so that the rate appearing on the records is less than what the borrower is actually paying.

The average life of each mortgage is nearly six years in the East, while in the South it is about three, and in the West nearly four years. The high rates of interest in the latter two sections of the country explain why the borrowers there should be more anxious to pay off their mortgages quickly. The rapidly increasing wealth of these same sections, moreover, accounts for the mortgagors' ability to do so, as shown by the above figures.

In comparison with other countries, the ratio of mortgage

[1] Under which there is, according to *Extra Census Bulletin* No. 28, due $31,102,433 to fifty-six railroads.

[2] On which there is due $26,462,223 to ten states, *ibid.*

[3] As the latter is given for December 31, 1890, in *Poor's Manual of Railroads* for 1892, p. xxii.

indebtedness to the value of the property is low, only 18½ per cent. of the value of all property being represented by mortgages. Over one-half of the property of the country is free from incumbrance, the remainder being subject to a debt of some 35 or 40 per cent. of its value.

It is apparent that, with the increasing abundance of capital and the rising value of property, not only the average life of the mortgages, but also the mortgage indebtedness itself is increasing. In the West this increase seems to depend on the facilities for borrowing, more than on anything else. The year when the greatest number of mortgages was recorded was 1887, which was the very time when the newly organized Western loan companies were finding it easy to dispose of mortgages in the Eastern states. There is nothing alarming, however, in this increase, as about 60 per cent. of the mortgages were incurred in purchasing, and about 20 per cent. for the purpose of making improvements.[1] On the whole, therefore, the borrowers are not spendthrifts; but, on the contrary, persons whose circumstances are improving, largely, no doubt, laborers in the cities who have bought homes, and young farmers in the West who have not yet paid for their farms.

A special census investigation in 17 counties in five states shows the amount of mortgages held by local investors. In the two counties of Alabama, for which we thus have figures, 33.22 per cent. and 50.05 per cent. of the amount of the mortgage indebtedness was estimated to be due to residents of the state. In four counties of Illinois, the proportion was from 35.60 per cent. to 78.93 per cent.; in four Iowa counties, from 32.98 to 74.79 per cent.; in five Kansas counties, from 28.75 to 36.06 per cent., and in two Tennessee counties, from 76.84 to 93.65 per cent. The total number of mortgages included in this special investigation for seventeen counties was 17,764, of which number 59 per cent. were held by residents of the respective states The total amount was $19,479,586, of which 48 per cent.

[1] Of the mortgages on farms 67.05 per cent. was for purchase money, 4.85 per cent. for improvements, 5.48 per cent. for both objects combined; on homes 47.95 per cent. for purchase money, 26.60 per cent. for improvements, 7.55 per cent. for both objects. —*Extra Census Bulletin* No. 63.

was held by residents of the same state in which the mortgage was made.[1]

From an attempt to further investigate where the mortgages of the United States are owned, the following results have been obtained:

MORTGAGES HELD BY DIFFERENT INVESTORS.[2]	STATED.	ESTIMATED.
171 Fire and Marine Insurance Companies licensed in Illinois, 1892	$41,937,522	
Other Fire and Marine Insurance Companies		$15,000,000
36 Life Insurance Companies licensed in Illinois in 1892	328,852,856	
Other Life Insurance Companies		10,000,000
Total net Assets of 5860 Building and Loan Associations, as Estimated by Mr. Carroll D. Wright	496,928,405	
Benefit and Aid Societies		10,000,000
643 Mutual Savings Banks	602,734,720	
416 Stock Savings Banks	112,097,856	
3191 State Banks	45,025,576	
1161 Private Banks	13,782,512	
168 Loan and Trust Companies	55,098,822	
Other Mortgage Companies	51,627,531	35,000,000
English Debenture Companies		100,000,000
Total	$1,748,085,800	$170,000,000
Grand Total		$1,918,085,800

Deducting the grand total from the total amount of mortgages leaves, roughly estimated, $5,182,000,000, which we must suppose to be held by private persons in America. Supposing

[1] Of mortgages to the value of $45,619,205 recorded from 1879 to 1890, in the 17 counties specially investigated, $27,251,662, or 59 per cent., were for purchase money, but both from the capitalists' and the borrowers' point of view, it is immaterial whether the debt is a balance unpaid or a loan to be repaid. Rate of interest on the one hand and security and marketableness of the bond on the other are the things to consider.

[2] All these figures, except those estimated, have been taken from the *Insurance Report of Illinois* for 1892, from the *Proceedings of the World's Congress of Local Building and Loan Associations*, held in Chicago, 1893, and from the *Report of the Comptroller of the Currency* for 1892, vol. i. The figure of $51,627,531, for "other mortgage companies," has been obtained by taking first the amount of debentures as stated for the sixty-five companies referred to farther on, and deducting therefrom the amount of debentures issued by the trust companies reporting to the Comptroller of the Currency. This figure, therefore, represents a minimum stated amount of mortgages on hand to be added to the amount stated by the Comptroller.

that the ratio obtained in the census investigation for the 17 counties above mentioned of 48 per cent. for the relative amount held by local investors, would apply to half of these mortgages, amounting to $5,182,000,000, and that the other half (supposed to cover such states as New York, Pennsylvania and Massachusetts) are held entirely by local investors, we get the following result:

Savings Banks, Insurance Companies, etc. (Mortgage Companies excepted) - - - - -	$1,778,000,000
Local Investors and Capitalists - - - -	3,938,000,000
Non-resident Investors holding Individual Mortgages - - - - - - - - -	1,244,000,000
American Mortgage, and Loan and Trust Companies	140,000,000
Total - - - - - - - - -	$7,100,000,000

That is to say, less than two per cent. of all the mortgages of the country are held by the mortgage loan companies. About ten per cent. are held by the savings banks, and about seven per cent. by the building and loan associations, about five per cent. by insurance companies, about 55 per cent. by local investors who have, in most cases, made the loans or sold the property themselves, and about 18 per cent. by non-resident investors. These figures, while being only a rough indication, are still suggestive.

The resident persons holding mortgages, themselves usually also the mortgagees, form the largest class of mortgage investors, and this fact is essentially characteristic of the American way of making mortgage loans. Under an ideal system of mortgage banking, the capital available for permanent investment would be distributed where most needed. But the actual facts are different, and there is considerable friction impeding the free movement of such capital. In one part of the country the rate of interest paid on a mortgage loan is with equal security twice as high as another.[1] So that in America the making of a mortgage loan is esssentially a local transaction.

[1] To Western people this fact is well known. The census mortgage returns show the proportion of the value loaned to be at least as low in the West as in the East.

Furthermore, in the sense in which railroad bonds are available, American mortgages are not available securities, and usually remain all their life the property of the mortgagees themselves. As the census figures show, the average mortgage is for only some 35 per cent. or 40 per cent. of the value of the property, so there is no doubt that the *average* security is greater than in the case of the railroad bonds. But the mortgages are not bought and sold to the same extent, and largely for that reason the rate of interest is higher; so that, while the average rate of interest on the railroad bonds is only 4.36 per cent., the mortgages draw on the average even more than 6.73 per cent.

Perhaps some explanation of this rigid and local character of mortgage banking in America can be found by examining the American mortgage loan companies, which are in several respects different at once from the English colonial debenture companies, and the mortgage banks of the continent of Europe.

II.

The first feature of mortgage banking in America which strikes the observer is that the mortgage companies are many in number, the capital of each, with a few exceptions, being small. This feature is characteristic of all banking in America, and just as we have no national bank, which can be compared to any one of the three great European banks, so also we have no mortgage company in any way comparable to the *Credit Foncier* of France, whose business more than twice exceeds that of all of the twenty-eight mortgage companies licensed to do business in the State of New York in 1893.

The mortgage loan companies of America are of comparatively recent date. While brokers and companies have long been negotiating individual mortgages, guaranteed and unguaranteed, the first company to issue debenture bonds secured by mortgages deposited in trust, seems to have been the Iowa Loan and Trust Company of Des Moines, Iowa, which made its first issue in 1881. This company was founded in 1872; the J. B. Watkins Land Mortgage Company, in 1870; the Middlesex

Banking Company, in 1873; and the New England Loan and Trust Company, in 1876.

But the earliest issues of debenture bonds of these latter companies are of 1885, 1886 and 1887. Of the companies licensed in New York in 1891, two were founded in 1880, four in 1882, two in 1883, six in 1884, two in 1885, three in 1886, three in 1887, five in 1888, four in 1889 and two in 1890. In addition to these are mentioned 128 others that had not been licensed but were doing business elsewhere.

Altogether there are 65 different mortgage loan companies that have been licensed for 1893, in one or more of the three states of Massachusetts, New York and Connecticut, and whose combined balance sheet is as follows:

ASSETS.

Loans secured by first lien on real estate	$70,151,306
Loans secured by second lien on real estate	2,125,437
Earned commissions on debenture loans	493,798
Loans on collateral and personal security	4,420,429
Tax sale certificate	364,881
Stocks and bonds	10,944,927
Office building	65,751
Other real estate	2,538,729
Real estate by foreclosure	4,684,637
Foreclosure expense	438,430
Premiums paid	536,872
Furniture and fixtures	114,814
Current expenses	360,556
Past due interest matured within the last 60 days	568,855
Past due interest remitted for but not paid to us	1,134,814
Past due loans remitted for	1,754,220
Due on uncompleted loans	68,749
Due from branch offices and agents	935,351
Due from sundry persons	622,455
Due from banks and bankers	3,208,691
Cash in office	237,942
Other assets	3,541,090
Total assets	$109,312,734

LIABILITIES.

Capital paid in	$24,926,924
Surplus and undivided profits	5,464,756
Guaranty fund	358,835
Bills payable	2,649,086
Debentures outstanding	62,571,311
Dividends unpaid	25,912
Interest paid in advance by borrowers	221,019
Loans paid but not remitted for	943,184
Due borrowers on uncompleted loans	740,726
Trust savings deposits	821,552
Certificates of deposit bearing interest	3,313,772
Deposits awaiting investment	1,084,237
Other deposits	2,797,004
Due to branch offices and agents	382,208
Due to banks and bankers	202,426
Other liabilities	2,809,782
Total liabilities	$109,312,734

The guaranteed mortgages outstanding amount to $70,468,266; unguaranteed mortgages outstanding, $36,723,908; the average capital would thus be $383,490; the average surplus and undivided profits, $84,073; the average amount of first mortgages on hand, $1,079,250.

Estimating that there are, in addition to these 65 companies, 100 others, each averaging one-fourth of these amounts, we obtain an approximate total capital of $35,514,224, a total surplus and undivided profits of $7,566,556, and a total amount of first mortgages on hand of $97,132,506.

As the entire banking capital of the country,[1] surplus included, is $1,749,589,305, the combined capital and surplus of the mortgage companies is only a little over two per cent. of the total.

This is a very small proportion, and the distribution also of the 167 companies named in the New York Report for 1891, shows that most of their business is concentrated in a few states. These companies are located as follows:

[1] As computed from the figures of the *Report of the Comptroller of the Currency*, 1892, vol. i.

Kansas	44	Texas	3	Vermont	1
Kansas City, Mo.	18	Minnesota	9	New Hampshire	4
Nebraska	23	Colorado	7	Massachusetts	3
Iowa	18	Illinois	1	New York	1
North Dakota	10	Montana	1	Connecticut	4
South Dakota	8	Washington	5		——
Missouri (except Kansas City)	4	Georgia	1		167
		Florida	2		

Some of the companies in the Eastern states have undoubtedly been organized there chiefly for the sake of convenience, most of the loans in fact being made in Western states.

Probably the origin of most of these companies is closely connected with the homestead laws, most of their business having been the making of loans to the new settlers as soon as these had lived long enough on their land to obtain a patent from the Government. And the fact that many of the settlers in such states as Dakota, Nebraska and Kansas have taken up claims without making valuable improvements on them, have obtained title, mortgaged the land, and then immediately abandoned it, has been detrimental to several companies that had been led too far west by the prospect of obtaining large profits. Other companies have suffered on account of crop failures, and others again because their managers were unable to resist the temptation to use their institutions for the purpose of floating new speculative enterprises.

In the excellent New York Report of 1891, Mr. Chas. M. Preston discusses at length the causes for such failures as had then taken place. He states that almost all the unsuccessful companies were new ones, having been in business less than five years; and he thinks the main cause of failure is, perhaps, the reckoning of second mortgage commission notes as cash profits, which has led many companies to declare and pay large dividends before they had actually earned and collected them. He calls the attention of investors to the fact that the trustees do not guarantee the bonds, and refers to the care which must be exercised by all Western loan agents, in order not to be misled by the representations of would-be borrowers.

Both in the Massachusetts and in the New York reports it is pointed out that the custom of not taking care that the assignment of the mortgages underlying the debentures is recorded in the name of the trustee, is a practice which is fraught with danger; since in the event of a failure other creditors might gain priority over the holders of debentures. Of course, it may be inconvenient for an American company in the West to have such assignments made to an Eastern trust company of record, and to have its mortgages released direct by the latter when they are paid, but it would seem as if this was the only course to be adopted for the absolute protection of the bondholders.

The examination of the affairs of these companies by Eastern banking commissioners marks progress. Of local examination, there is so far but little. The companies of New Hampshire, Connecticut, New Jersey, Minnesota, South Dakota and Georgia state that they are so examined. Also in Kansas and Nebraska, according to some of the companies, an annual statement is required. In most states there is absolutely no examination, but the inspection by Eastern commissioners, such as those of New York, Massachusetts and Connecticut, has already proved valuable.[1]

As to how mortgage companies should be inspected, Mr. Preston quotes some excellent answers, given him by various companies, of which I repeat a few:

1. Examine its loans.

2. Consider its amount of unguaranteed loans as compared with its capital; whether its officers can personally supervise its business in detail; whether the property on which it loans is good revenue property; whether the laws in the community in which it places its funds are favorable; whether it takes second mortgages or cash for commissions.

3. Whether the management has had a number of years of successful experience in the business; the proportion of the capital of the company owned by officers and managers; field of

[1] One well known company that has recently gone into the hands of a receiver, was not licensed to do business in New York for the year 1893.

operation; amount of guaranteed loans; number of foreclosures.

4. Proportion of actual cash paid in as capital to volume of business; policy in regard to accumulating surplus instead of dividing the earnings.

An examination of the figures given above shows that by far the greater portion of the capital is not invested in mortgages, but in stocks and bonds (often doubtful securities issued by small Western companies), in real estate, in loans on personal and collateral security, and the like. Still there is, over and above all these items, a margin of additional security, consisting in the excess of mortgages over debentures, which amounts to 10 per cent., a proportion at least equal to that in the banks of the continent of Europe, and amply sufficient, provided the loans are made with ordinary care.

The amount of $4,684,687, represented by real estate by foreclosure, is no doubt a slow asset, but, with the exception perhaps of some of the arid lands west of the Missouri River, nevertheless a good asset, on which a considerable profit is likely to be realized, owing to the certainty that the property wil advance in value.[1]

Some of the companies appear from their statements to be doing a general banking business in addition to their mortgage business, about one-half the deposits being represented by loans on personal and collateral security, and the other half by stocks and bonds. The transaction of a small general banking business, certainly, is a proper feature of mortgage banking, because it is desirable that every mortgage company having to make large payments of interest should have a certain portion of its assets invested in more readily available securities than real estate mortgages.

That the Eastern States do not at present afford a good market for the securities of these companies, is shown by the fact that 35 companies licensed in the State of New York during

[1] The foreclosure profits of the Connecticut Mutual Life Insurance Company up to January 1, 1888, were $752,175.17. *Political Science Quarterly*, vol. v., p. 27.

the year 1889–1890 sold but $7,366,000 in securities there, or only 20 per cent. of the average annual business of these companies for the last five years. One well known company, for example, which has an expensive office in New York sold in that year only a little over $350,000, which is not a brilliant showing, considering the large expenses involved for such an office, in addition to such commissions for agents as would in some instances be paid. On the whole, these sales of only $7,366,000 in the State of New York, do not indicate a very flourishing condition of affairs, since New York City is, next to Philadelphia, perhaps the most important market for debenture bonds in America. In Massachusetts the savings banks have been prohibited from investing in other bonds or mortgages than those which are secured by property within that commonwealth. In Massachusetts, in 1891–92, there were sold only $2,300,365 by forty companies; and in 1892 twenty-five companies in New York sold only $4,152,282—figures which show that Eastern investors have on the whole preferred other forms of investment.

One probable reason for this limited amount of business is to be found in the fact that the companies are selling the individual mortgages themselves to a greater extent than debentures based thereon. Of the 39 companies licensed in New York for 1891, there were nine, and of the 50 companies licensed for that year in Massachusetts, there were 19, that had issued no debentures at all. Some of the companies have almost all their loans represented by debentures, some have negotiated chiefly guaranteed mortgages, and others again principally or exclusively unguaranteed ones. The 65 companies from which we have statements, have, as shown above, almost twice as large an amount of mortgages outstanding as of debentures, and if the unlicensed smaller companies were included, as well as all the business done by mortgage-loan brokers in the cities, the difference would be still greater.

It is remarkable that the public should prefer an individual mortgage to a debenture bond, when the latter seems both safer, and, when the company is responsible, more collectible than a

separate mortgage. Perhaps some explanation is to be found in the fact that the debenture system is still a somewhat recent departure in America; and another cause probably is that neither the trustees for the bonds, nor the loan companies themselves, have the unlimited confidence of the investors. Even though they must go to the trouble of having all assignments recorded, must look after taxes and interest, and have only one property as security, instead of an undivided interest in a number of mortgages which mutually insure one another, the investors apparently prefer to hold the mortgages themselves. The fact that thus far the practice in America has been to issue short time debentures may be still another cause, since there is considerably more risk involved in the guaranty of these short term bonds, than bonds such as are issued by the European mortgage banks.

Another factor which has tended to diminish the business of these small American companies, is the fact that none of them has its bonds listed on the exchanges, as is the case in Europe. In truth, each company seems to depend principally upon some one locality where its officers are personally acquainted in which to sell bonds or mortgages. The result of this is that at one time such a mortgage company has sufficient money to loan, but at another time it has not nearly enough, so that its agents are often obliged to keep their customers waiting for months. When the business is but small the expense of having somebody constantly traveling in the East for the purpose of selling bonds, or of having a permanent office in New York, is also considerable. And the bonds themselves are not as attractive as investments as the railroad loans, because they are not listed, and so are not readily convertible into cash.

Nor can it be doubted that the listing of the bonds has the effect of directing the attention of the bondholders to the affairs of the companies far more effectively than when each bond owner is acting singly for himself. It is after all a very simple matter to investigate the affairs of a loan company. Having a list of the borrowers from the trustees, the examination of a few

of the loans will soon show how these have been made. The expense is the only obstacle, at present, preventing the holder of one or two bonds from doing this for himself, an expense which would be nominal when many bondholders participated. The recent failure of a few well known American companies must largely be attributed to speculation by the managers, which they would never have dared to commence in case their bonds had been subject to the vigilant scrutiny of the Wall Street speculators.

As for the bonds themselves, they are usually for short terms, varying as follows in 1891[1]:

Less than 5 years - -	$101,022
5 years - - - -	10,705,229
Between 5 and 10 years -	5,927,348
10 years - - -	25,768,833
Between 10 and 15 years -	1,742,500
15 years - - -	929,000
20 years - - -	600,000
3, 5, 7 and 10 years - -	3,320,880

Often the bonds are redeemable sooner at the option of the company, the majority of the bonds being "5–10" bonds, a period which is very short in comparison with that usual in Europe, where the far safer practice is to have the average life of the bonds 25 years or more.

The rate of interest at which debenture bonds have been certified are as follows: [2]

Per Cent.	Companies Licensed in New York, 1890.	Companies Licensed in Massachusetts in 1891.	Companies Licensed in New York, 1892.
4½	None.	$1,047,849	$134,545
4¾	None.		697,493
5	$4,545,027	7,707,701	10,182,782
5½	563,052	872,128	1,050,000
6	30,675,673	34,143,131	31,237,050
6½	348,550	470,165	633,177
7	4,069,505	4,280,225	4,268,145
8	470,710	25,538	None.
Not stated	3,341,500	25,538	

[1] As computed from the figures furnished by fifty companies licensed in Massachusetts for that year.

[2] As computed from figures furnished in the respective state reports on foreign mortgage companies.

That is to say, the average is a trifle under 6 per cent. And as the average rate of interest in the states where these companies loan on mortgage is about 7½ per cent. or more, this means that the average gross profit to the companies is at least 1½ per cent., exclusive of commissions which would in some cases be paid to agents, and in some cases to the companies themselves.

A mortgage company, therefore, first loans out its own capital at an average net rate of 7½ per cent., then it sells debentures, and loans out again the money received from the sale of these debentures. A company that, for the sake of illustration, can loan every year only twice the amount of its own capital stock, and can at the same time keep its own capital permanently invested in mortgages, earns twice 1½ per cent. or 3 per cent.; the average life of the mortgages being nearly five years, this means earnings of five times 3 per cent. or 15 per cent. plus 7½ per cent., the permanent interest on the invested capital stock, or 22½ per cent. per annum. The figures show that many companies have turned their capital more than twice a year, the Lombard Investment Company, The Equitable Mortgage Company, The Iowa Loan and Trust Company, and the New England Loan and Trust Company being all instances to the point.

This view of the profitableness of the mortgage loan business is amply corroborated by the statements of the companies themselves. The dividends for the last five years, as stated by the companies in the Massachusetts report for 1891, average over 9 per cent., there being very few cases of less than 8 per cent., and in addition to this, many companies have accumulated large surplus funds, which have from time to time been added to the paid-in capital.[1]

If, taking up a few specific cases given in the New York report of 1891, we divide the surplus by the number of years the company has been in existence, and add the amount so obtained to the stated dividends, the following percentages are obtained as the approximate actual net earnings of these companies. Omitting the names of the companies it may be

[1] During the last two years the dividends have in some cases been reduced.

stated that apparently one company for eight years earned $21\frac{6}{10}$ per cent.; another for six years, 19 per cent.; another for five years, 13 per cent. (so stated by itself); another for eighteen months, $16\frac{1}{4}$ per cent.; another commenced in 1885 with a capital of $10,000, and had, on October 1, 1891, earned $79,260; another earned 19 per cent. for seven years; another (in Washington Territory and State) earned $33\frac{1}{3}$ per cent. for five years. These are fair average examples; and where the amount loaned has been large, these high profits would indicate excellent management rather than exorbitant rates charged to borrowers.

There is, however, one fault which should be pointed out in many American mortgage companies, and of which it must be said that it cannot lead to a permanent and mutually satisfactory business; that is the practice of loaning out money which is obtained at 6 per cent. at something like 10 per cent. and so obtaining a high profit, not by doing a large business, but by earning a wider margin than is fair to the purchasers of debentures. In case such a loan runs five years, the debenture drawing 6 per cent. and the mortgage 10 per cent. interest, the total profits of the company on one transaction would be 20 per cent. of the amount loaned.

This feature may be illustrated by referring to a company which was organized in Kansas in 1886. On September 30, 1891, this company had a paid-in capital of about $62,000. It had paid since founded about 18 per cent. dividends, or $55,800; and accumulated a surplus of $10,000; total earnings, $65,800, or $13,160 per annum, equal to a little over 21 per cent. The total amount loaned by this company to date was $300,000 or $60,000 per annum. The annual net earnings were $13,160, and the company therefore earned 22 per cent. net, and over 22 per cent. gross on each loan made. We do not know at what rate this company loaned its funds, nor at what rate it obtained its money. It issued no debenture bonds whatever, and probably took its profits in second mortgages on the farms of the borrowers. The mortgages negotiated by the company may not have been an unsafe investment, but it is perfectly clear that the

borrowers were paying at least 10 per cent. and probably from 10 to 15 per cent., while the investors were obtaining only from 6 to 7 per cent. The fact that such business has been possible in the West shows how badly organized the mortgage loan system of America is, and conclusively proves that there is room in America for many more large, safe and conservative loan companies than there are at present.

III.

The high rates of interest paid by borrowers in America have, of course, encouraged the formation of mortgage companies; but, as we have seen, these are nevertheless small, of local origin, local in character, and do not meet the demands of Eastern investors, chiefly, no doubt, because their bonds are not listed. And for the reason that the mortgages and debentures they are offering are not greatly superior to the individual mortgages themselves, these companies have been unable advantageously to take up the mortgage loan business of the cities and towns,— a business which is entirely in the hands of local agents who negotiate the loans, and sell the individual mortgages chiefly to local investors. But the census returns show what immense amounts are invested in mortgages on lots. In the larger towns and cities the evils inherent in the present American methods of mortgage banking are felt to a less degree than in the country, for the simple reason that in a city it is easier for the borrowers and lenders to come together. The varying rate of interest on lots throughout the country shows also that—even for city loans, and especially in the matter of smaller loans—capital flows from place to place with great difficulty.

The advantages and disadvantages of the present system may now be considered first from the borrower's and then from the lender's point of view.

For the borrower, the manner in which mortgage loans are made in America today is both expensive and inconvenient. A loan is usually obtained through an agent or broker, whose commission is rarely less, and on farm mortgages often more, than

2½ per cent. on a five-year loan, the commission thus averaging rather above than below 10 per cent. of the whole amount of interest paid, and on Western farm loans it is safe to say that 20 per cent. of the entire amount of interest paid during the life of the mortgage would be nearer the average commission than 10 per cent. The average cost of a loan to the borrower is thus considerably more than the rates of about 7.50 per cent. as given by the census. Even at so high a rate, it is not always easy to obtain a loan. The mortgage loan companies are often temporarily short of available capital ; the brokers will promise to make the loan, but it often takes weeks, and even months, before they succeed in procuring the funds. This applies both to country and in a less degree to city loans, and is not a desirable state of affairs from the point of view of the borrower.

From the point of view of the investor, the direct purchase of a mortgage which is not guaranteed by a firm of bankers, or by a responsible loan agent or company, may be a thoroughly safe investment; but it is entirely satisfactory only when the investor is personally familiar with the property mortgaged, and can always be present to see that the taxes are paid, to see that the insurance is kept up, and when, furthermore, he is able at any time to take steps to protect himself in case of default. Generally speaking, a single mortgage is not as safe as a debenture bond, because the mortgages deposited with the trust company mutually insure one another, and because the whole issue is further guaranteed by a company with some capital of its own. And even though the security may be good, and while there may not be any prospect of actual loss by a person owning a separate mortgage, it should still be considered that there may be both trouble and delay before the money can be obtained. As the law of foreclosure differs in different states, this difficulty is felt especially by non-resident investors, who have, as above estimated, large amounts thus invested in other states, a portion only of which is guaranteed by the mortgage companies, brokers and agents.

In availability, a separate, unguaranteed mortgage is certainly

inferior to a good debenture bond. If it is desired to sell the former, the purchaser must investigate in detail, not only the mortgage itself, the abstract of title, etc., but he must see that the taxes have been paid, and the insurance kept up, and must examine also the property itself; or else he must rely, in regard to most of these points, on the statement of the person wishing to sell the mortgage. It is furthermore necessary for the purchaser of such a mortgage to have the assignment to himself put on record at once for his own protection, an unrecorded assignment being worthless as against other creditors. So there is considerable expense and trouble connected with such a purchase.

For these reasons it is evident that the market for a separate mortgage is almost of necessity restricted to the immediate vicinity of the property itself, whereas a debenture bond can be sold wherever the issuing company is known; and it would seem as if it would be better for both resident and non-resident investors in individual mortgages to hold listed debenture bonds, than to hold such mortgages, even if the rate of interest obtained from the former might then be a little less. It would mean to them a saving of legal fees, traveling expenses, trouble and delay, and they would then be sure of having both principal and interest paid on the date when due, and of having an investment which would be available at any time.

But a debenture bond is most available only when listed on the exchanges. The debentures, as issued at present, are in this respect not superior to a mortgage that is guaranteed by a firm of private bankers or brokers, or a small loan company, and thus not subject to all of the objections alluded to. But neither can such a guaranteed mortgage, especially when guaranteed by a small company, be compared in availability with a railroad bond or with such bonds as those issued by the European mortgage banks.

There are, in addition to the investment in debenture bonds, several other indirect ways in which the American investors are really holding mortgage security, and I shall briefly examine the

advantages and disadvantages of these different modes of investment.

The mortgages held by trustees, by corporations, and by the fire and marine insurance companies will not be included under this. These are simply large investors who have acted upon the theory that it is desirable to "have their eggs in as many different baskets as possible," and who, therefore, have a large proportion of their own specific funds invested in real estate mortgages.

To a certain extent, this would apply also to the life insurance companies, but in so far as they have issued investment policies, the principal of which is made payable after a term of years during the life of the policy holder, they are really taking the part of an investment company. They are offering to receive a certain amount every year for investment, and to pay it back in one sum after a period of twenty years or more, with compound interest, or profits, usually of about 5 per cent. This amounts to offering to the public a 5 per cent. investment, secured, as appears from the annual statement of 35 leading companies, by real estate mortgages to the average extent of 40 per cent., by real estate to the extent of 10 per cent., by collaterals to the extent of five per cent., by stocks and bonds to the extent of 37 per cent., by currency to the extent of five per cent. The investment policies of the New York Life Insurance Company, as far as can be seen from the annual statement, amounts to about 43 per cent. of the total amount of the policies outstanding. And the total assets of the life insurance companies doing business in Illinois amount to $831,711,950. The purchase of such an investment policy is a safe investment if the company is well and honestly managed and if the public inspection of its affairs is thorough and free from any taint of political jobbery. In general, however, but little is known by the public about the inside affairs of these companies. And the fact that on the average 14.50 per cent. of the total annual income from premiums and annuities is spent for commissions to agents is not a favorable consideration. It is an

available investment only to a limited extent, and at considerable cost to the person wishing to realize on his policy in advance of the time specified for the repayment of the whole amount.

The national banks are not permitted to make mortgage loans at all, and the state and private banks together have only $58,808,088 invested in mortgages out of total assets of $1,187,-359,404.[1] The savings banks, however, hold $714,832,576 of mortgages, with total assets of $1,964,044,861, and savings deposits of $1,712,769,026. So that over 41 per cent. of the savings banks deposits are invested in real estate mortgages. The savings deposits yield interest at an average rate of 4 per cent. Usually the deposits are payable on demand or upon giving a short notice, so, in point of convenience to the investor, this is a satisfactory investment. The average amount of a savings bank account is $358.20. In point of safety it is hardly equal to the bonds of a large mortgage bank, the average capital (surplus included) of the American stock savings banks being only $115,-000, the average surplus of the American mutual savings banks being $190,000.[2] And in point of availability, a savings bank account is also probably inferior to the listed bonds of the German mortgage banks. I shall show how these bonds stood the test of the panics of 1848 and 1873, and the flurries of 1881, 1884, and 1893, while it was necessary for the savings banks of Chicago to demand sixty days notice in June, 1893. In cases of runs on the savings banks, it is safe to say that they would find it very difficult to realize on the mortgages they hold, while if the depositors held bonds like those of the German banks, which were listed on the exchanges, they could always be sure of being able to sell them at a comparatively small sacrifice. As the average rate of interest paid by the savings banks is about 4 per cent., the income which would be derived from a savings account is no higher than that which would be derived from an equal amount of debenture bonds. Neither

[1] *Report of the Comptroller of the Currency*, 1892, vol. i.

[2] *Report of the Comptroller of the Currency*, 1892, vol. i.

an investment policy nor a savings bank account would, therefore, seem preferable to an investment in good debenture bonds.

The building and loan associations have almost all their assets of $496,928,405[1] invested in mortgages. As to these associations it should be noticed that they are founded with the avowed purpose of making loans to the same class of people that furnishes the money, that is, they are not, properly speaking, a connecting link between the borrowing and the lending public. Great dissatisfaction often exists on the part of members who are unable to obtain the loans they expected to get when they joined the association. It has, therefore, been advocated that stock should be sold avowedly for investment purposes, and have the word "investment" printed on its face. And in some places, notably in Minneapolis, "paid up" stock is now sold, which closely resembles debenture bonds, except that the profits of the former would be larger, uncertain, and depending on the profitableness of the association. The amount so far issued of this stock is, however, not great.

It can, of course, not be denied that the building and loan associations have, through the compulsory manner of monthly payments, developed the habit of saving, and also assisted many to obtain a home. In the state of Massachusetts they had, in 1891,[2] 49,441 members, saving $353,069 monthly, out of whom 9,883 were borrowers. But there are still many objections which can be made to associations of this kind. Their means are not great, the average assets of a Massachusetts coöperative bank being, in 1891, $100,000, and of a New York building and loan association, $55,000, the average for the entire country being, in 1893, only $83,093, and a few bad investments would, therefore, seriously affect any one of them. And the fact that they are not always managed by business men, their limited

[1] *Proceedings of World's Congress of Local Building and Loan Associations,* Chicago, 1893.

[2] *The State Report on Coöperative Banks* for that year.

means preventing them from paying good salaries, or any salaries at all, and also the further fact that the persons who invest in them are usually not business men themselves, are rather unfavorable considerations, when the safety of such an investment is to be considered. Furthermore, it is an undeniable fact that many such associations have been formed and are managed by persons who are themselves borrowing practically all the funds, and it is certain that some of the associations of this description are being mismanaged, and must be regarded as unsafe. As a rule the building and loan associations have been profitable, charging the borrowing member a high rate of interest, and in many cases they allow members to withdraw funds after a certain time, with 6 per cent. interest from the date of deposit. That they would in cases of emergency be far less able to pay out on demand the money invested in shares, than the savings banks their deposits, can not be doubted, and a share in a building and loan association is, therefore, for many reasons a more profitable, but a far less safe and available investment, than a listed debenture bond of a strong mortgage bank.

IV.

Having reviewed the main characteristics of mortgage banking as it is carried on in America to-day, some reference may be made to what has been accomplished in other countries in this respect.

We have seen that in America the total amount of mortgages is large, that the ratio of mortgage indebtedness is low, the average life of each mortgage short (about five years), and the rate of interest high (about 7½ per cent. in the West). We found that the mortgages average less than one-half of the value of the security, and that less than one-half of the property in America is under mortgage. We found that nearly one-half of all the mortgages in the counties for which we have figures are held by residents of the same respective state, and have come to the conclusion that the mortgages are held by different kinds of investors, as follows in the order of importance: Resident private persons, non-resi-

dent private persons, savings banks, building and loan associations, life insurance companies, mortgage companies, the last named holding less than 2 per cent. of the total amount of mortgages. We have found that for the borrower in the Central and Western States it is often difficult to obtain a loan even at so high a rate as 7½ per cent., and while the laws of America are almost all that could be desired from the point of view of the investor, the direct investing in a separate mortgage is a difficult, and sometimes troublesome, transaction, on account of the different laws in the different states; but still we do not find that the investment in a debenture is preferred by non-resident investors to the direct purchase of a mortgage, although the former would seem to offer many advantages. And an investigation of the different indirect modes of investment in real estate security, comprising such investments as a life insurance policy, a savings bank account, and a share in a building and loan association, shows that there are many objections which can be made to them, so that neither of these different modes of investing in real estate mortgages, as practiced in America today, can be considered a satisfactory solution of the problem of mortgage banking, which is: "How can the borrowers best be protected from usury, and the lenders from risk?" Nor can such mortgage loan companies as those existing at present be considered a final solution. Their capital is too small, their surplus too small, their methods of selling securities too expensive, their command of capital too limited and their bonds are not listed. The last feature is the main point of difference in comparison with the banks of the continent of Europe.

After the Australian experience, the English Colonial Debenture Companies may be dismissed with a few words. They have been loaning chiefly their own capital and their deposits, and in so far as they have done the latter, they have disregarded the first principle of mortgage banking, namely, that real estate mortgages must not be treated as quick assets. In England, where the holdings of land are large, there has been less need of mortgage banking facilities.

It is to the countries of Germany, France, Austria, Italy, Holland, Belgium, Denmark, Sweden, Norway, Finland, Russia, Switzerland, and even Spain, Portugal, Greece, Roumania, Egypt, Algeria and the South American Republics and Mexico that we must look for instances of modern mortgage banking. It would take too long to consider even the salient features of mortgage banking in all these countries. They have all more or less successfully followed the example of Germany and France, and a brief explanation of the situation in these two countries must suffice.

The Credit Foncier of France is the largest mortgage bank of the world. Owing to the special legal privileges it enjoys, which have given it practically a monopoly of the business, it has been enabled to secure a paid-in capital of 170,500,000 francs, represented by shares of 500 francs each, which are worth over twice that sum. It had in 1890 a surplus of 35,277,077 francs, and had bonds outstanding amounting to 3,037,424,180.16 francs, of which 2,011,316,084.09 were based on real estate mortgages, while 1,000,529,708.02 were based on loans to communes, departments, etc. The bonds draw 3 and 4 per cent. interest, the 4 per cent. bonds being quoted in January, 1892, at 104 per cent.; in January, 1893, one issue at 104.8 per cent., and another (of 1863) at 103.2 per cent. And in July, 1893, when America was suffering from the panic, these same two issues were quoted on the Paris Bourse at 102 and 103.75 per cent. respectively.[1] Although it is a private corporation, the Credit Foncier is managed by a president appointed by the government. The profits which it may charge are limited to one-half of one per cent. per annum, gross, but this has not prevented it from being extremely profitable.

As to what it has done for the benefit of the borrowers, the case is not quite so clear. According to a contemporary official report,[2] the rate of interest paid on mortgage loans in France was,

[1] As reported by *Le Monde Economique*.

[2] LETTE, *Das Landwirthschaftliche Kredit und Hypothekenwesen* (1868) pp. 13–14; *Bankers' Magazine* (N. Y.), vol. xxix. p. 441.

in 1850, before the formation of the Credit Foncier, from 7 to 10 per cent., while at present such loans are made at from 4 to 5½ per cent., those of the Credit Foncier usually drawing 4½ per cent. But in comparison with Holland and most of Germany, 4½ per cent. is a high rate of interest.

In all its essential features, the Credit Foncier resembles the German mortgage banks, which are strictly private concerns. They also make mostly long term loans, which are repaid by the borrowers in annual sinking fund installments of from one-half of one per cent. upwards, which at compound interest, gradually, in the course of fifty years or less, extinguish the principal of the loans. With the proceeds of the sinking fund, the corresponding issue of bonds is then gradually withdrawn, the numbers of the bonds which are to be repaid being decided each time by lot.

This feature is common in Germany to both the mutual credit associations and the mortgage banks. The former are associations of borrowers whose properties are jointly liable. Thirteen such associations had, in 1890, bonds outstanding as follows:[1]

MORTGAGE DEBENTURE BONDS.		
3 per cent.	61,798,350 marks	
3⅓ per cent.	1,394,100 "	
3½ per cent.	1,538,608,175 "	
4 per cent.	148,912,570 "	
4½ per cent.	20,590,000 "	
5 per cent.	9,093,000 "	
		1,780,398,195 marks
MUNICIPAL BONDS.		
3½ per cent.	30,163,050 marks	
4 per cent.	6,941,250 "	
		37,104,300 marks
Total Bonds		1,817,500,495 marks

Of mortgage banks there are about thirty in Germany proper, 29 of which had in 1890 an aggregate capital of 332,546,628 marks, and bonds outstanding to the following amounts:[2]

[1] Computed from figures given in W. SALING'S *Berliner Börsenjahrbuch* for 1891.

[2] Computed from figures given in W. SALING'S *Berliner Börsenjahrbuch* for 1891.

MORTGAGE DEBENTURE BONDS.

3½ per cent. -	1,102,481,400 marks	
4 per cent. - -	1,664,022,667 "	
4½ per cent. -	51,501,960 "	
5 per cent. - -	13,473,875 "	
		2,831,479,902 marks

MUNICIPAL BONDS.

3½ per cent. - -	33,422,800 marks	
4 per cent. - -	1,970,800 "	
		35,393,600 marks
Total Bonds - - - - - -		2,866,873,502 marks

This shows the large proportions which the business of the credit associations and mortgage banks has assumed in Germany. The total banking capital of the country, private bankers not included, amounted in 1890 to 1,643,643,628 marks,[1] out of which the mortgage banks alone had 332,546,628 marks, or about 20 per cent., while in America the mortgage companies have, as seen, less than two per cent. of the whole banking capital. The bonds of these concerns are regarded in Germany as investment securities of the highest order. The Reichsbank makes loans on them. Trust funds are invested in them, and their high standing in the past justifies this confidence.[2]

Mr. Max Wirth, in his *Handelskrisen*, calls attention to the fact that while other bonds and shares were rising before the crisis of 1873, these bonds were falling, the situation being reversed immediately after the panic, and gives the following figures:

Bonds.	Mar. 14, 1870.	Sept. 15, 1873.
Posener Pfandbriefe - - - - - - - - -	82	90
Schlesiche Pfandbriefe 3½ per cent. - - - -	76	81
Schlesiche Litr. A. 4 per cent. - - - - - -	85	192½
Schlesiche Litr. C. - - - - - - - - -	86	93
Rentenbriefe - - - - - - - - - -	88⅜	94

[1] As computed from figures given in W. Saling's *Berliner Börsenjahrbuch* for 1891.

[2] According to figures in my possession none of the bonds of any of these banks have varied in price for the last ten or twenty years more than a few points from year to year.

In 1881 the same phenomenon was observed by him in regard to the 4.5 per cent. bonds of the Austro-Hungarian Bank. And the explanation of this obviously is, that during the speculative period these safe bonds were extensively sold, while after the panic they were again preferred to the other more speculative securities.

The following figures[1] further show the high character of these securities:

Year.	Berliner Pfandbrief Institut 5 per cent. bonds.	Schlesiche Bodenkredit. Aktienbank 4½ per cent bonds.	Prussian 3½ per cent. government bonds.
1871	102⅔		89
1872	104	96	89
1873	104⅞	88	91.5
1874	101¼	95¾	90
1875	105	93	91.5
1876	105.7	94	92.8

And the following comparison is equally striking:

Year.	Prussian Central Bodenkredit Co. 4 per cent. bonds.	Prussian 4 per cent. Gov. Bonds of 1868, not consolidated.	Prussian 4 per cent. "Konsols."
1880	98	100.1	100.25
1881	98.75	100.8	100.8
1882	99.	100.2	100.6
1883	99.8	100.8	102.1
1884	100.4	101.5	103.25
1885	101.3	102.1	104.1
1886	104.5	102.9	106.
1887	102.5	102.5	106.7
1888	102.9	103.2	108.
1889	101.3	101.5	106.
1890	101.8	102.75	105.1

And similarly during the trying year of 1893 have these bonds[2] remained unaffected:

Bonds.		1891	1892		1893	
		July.	Jan.	July.	Jan.	July.
Prussian Central Bodenkredit company.	4 per cent. bonds	101.10	100.50	101.10	101.20	101.20
	3½ per cent. bonds	94.	92.80	95.20	95.	96.70
Prussian Hypotheken Aktien Bank.	4 per cent. bonds	101.50	101.10	102.	102.30	102.
	3½ per cent. bonds	95.30	93.40	95.70	97.20	98.

[1] From W. SALING'S *Berliner Börsenjahrbuch* for 1891.

[2] As shown by the quotations in the German daily papers.

By making safe loans on income yielding properties only, and issuing listed bonds, the German mortgage concerns have thus been able to obtain from the public to be lent on mortgages, the sum of about 5,000,000,000 marks, at about 3¾ per cent.

When we consider the low rate of interest drawn in America by railroad bonds, municipal securities, etc., there is no reason to doubt that, with proper methods, similar results could also be accomplished here, and that thus the high rate of interest, the great evil exhibited by the census returns, could be abated. A greater supply of capital for mortgage loans would facilitate not only building operations in the cities, but also the purchase of implements, tile drainage and other improvements in the country. A better system of mortgage banking might also counteract a tendency which now seems to be operating, to change the landed system of the United States from one of proprietors to one of tenants.

The following figures[1] speak for themselves:

States.	In 1880. Hired Farms. Per Cent.	In 1890. Hired Farms. Per Cent	In 1890. Hired Homes. Per Cent.
Maine	4.32	7.62	51.98
New Hampshire	8.12	10.92	60.93
Vermont	13.41	17.62	54.39
Massachusetts	8.17	15.00	67.00
Rhode Island	19.89	25.00	73.97
Connecticut	10.22	17.68	66.15
New Jersey	24.59	32.11	64.34
Maryland	30.95	37.23	68.13
South Carolina	50.31	61.49	82.07
Georgia	44.85	58.10	79.00
Tennessee	34.53	41.88	71.02
Ohio (10 counties)	24.96	37.10	
Iowa	23.83	29.57	44.96
Wisconsin	9.05	13.10	40.45
Minnesota	9.16	15.25	53.01
Kansas (10 counties)	13.13	33.25	
Montana	5.26	13.40	56.30
Wyoming	2.85	20.88	61.54
Utah	4.58	9.43	39.35
Nevada	9.69	16.12	43.92
New Mexico	8.08	11.82	37.30
Idaho	4.61	11.43	41.53
Arizona	13.16	19.88	55.18

[1] From the Census of 1880 and the *Census Bulletins* of 1890.

The true explanation of these facts probably is, that as land becomes valuable, its owners, or rather the sons of the owners, become perhaps too rich to remain contented as farmers. The renter as a rule does not prosper, but when he can become an owner by buying on easy terms the case is altered, and an improved system of mortgage banking, which would make it easier for these renters to purchase their farms, would do much towards preserving the excellent class of working farm proprietors, which is still the backbone of the Western States. No matter what point of view we take, it is thus evident that a better system of mortgage banking would be of the greatest possible benefit to the United States.

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CHICAGO.